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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,775	10/01/2003	Kirk Charles Frederickson	67,008-076; S-5656	7918
74187 7590 07/09/2009 Carlson, Gasky, & Olds, P.C./Sikorsky 400 West Maple Road, Suite 350 Birmingham, MI 48009				
EXAMINER				
LUONG, VINH				
ART UNIT		PAPER NUMBER		
3656				
MAIL DATE		DELIVERY MODE		
07/09/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/676,775

Applicant(s)

FREDERICKSON, KIRK CHARLES

Examiner

Vinh T. Luong

Art Unit

3656

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 5, 7-9, 13, 19, 23 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) 8, 9, 13, 19, 23 and 27-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7, 23 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 3656.
2. A request for continued examination (RCE) under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on June 29, 2009 has been entered.
3. The restriction requirement and the election in the parent application are carried over to the instant RCE application. Please see MPEP § 819.
4. Claims 8, 9, 13, 19, and 27-30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and/or species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 4 and 23, 2005.
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1, 2, 4, 5, 7, 23, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether:

(a) A confusing variety of terms, such as, “a controller” and “a motor” in claim 1 refer to the same or different things. As noted, paragraph [0026] of the specification describes: “[t]he processor 28 generates output signals to operate *a power source 30 such as an electric motor, air motor, hydraulic motor, turbine or the like. The power source 30 operates to control the phase and magnitude characteristics of the force generator(s) 24 in response to the processor 28.*” (Emphasis added). Therefore, the controller and the motor are apparently the same thing, *i.e.*, the power source 30. See double inclusion in MPEP § 2173.05(o). Assuming *arguendo* that the controller and the motor are different, Applicant is respectfully suggested to identify each claimed element with reference to the drawings; and

(b) The term that appears at least twice, such as, “a motor” in claims 7 and 23 refer to the same or different things. See double inclusion in MPEP § 2173.05(o) *supra*. Applicant is respectfully suggested to identify each claimed element with reference to the drawings.

7. Claims 1, 2, 4, 5, 7, 23, and 31, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanski (USP # 2,309,172) in view of Fink et al. (USP # 6,776,580).

Kanski shows, in Figs. 1 and 2, a force generator comprising:

a rotationally fixed first circular member 64 defined about a first axis (about shaft 52) to define a first inner diameter circular path, the first circular member having a first radius;

a second circular member 55 defined about a second axis (about element 54) offset from the first axis to define a second radius, the second radius being one-half the first radius, the second circular member movable about the circular path to simultaneously complete one revolution about the second axis and one orbit around the first axis;

a mass 56 located adjacent a circumference of the second circular member to generate a vibratory inertial force; wherein:

the vibratory inertial force is a sinusoidal inertial force in a straight line (d_1);

the path of the mass 56 is two-cusp hypocycloid (d_1);

the first circular member comprises a ring gear;

the second circular member comprises a planet gear;

further comprising a crank 53 which mounts the second circular member, the crank rotates about the first axis;

further comprising a motor, which drives the crank (p. 4, col. 2, ll. 65-68), having a controller (inherent since all motors have some sort of a switch that controls, *inter alia*, "on" and/or "off" position of the motor) that drives the motor to control the vibratory inertial force.

On the one hand, Kansi's motor is inherently in communication with the controller to drive the crank to control a phase and magnitude of the vibratory inertial force to compensate for an externally generated vibratory force sensed by the sensor system because the motor and the controller of Kansi are the power source similarly to Applicant's motor and controller. On the other hand, the controller is notoriously well known as admitted by Applicant (Spec. 1: ¶ 3).

In summary, Kansi teaches the invention as claimed except the sensor.

Fink teaches the sensor 22 in communication with the controller 24 in order to generate signals representative of dynamic changes at selected locations of the force generator assembly 20, 28.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sensor in communication with Kansi's controller in order to

generate signals representative of dynamic changes at selected locations of Kansi's force generator assembly as taught or suggested by Fink. The use of the sensor in Kansi's force generator assembly as taught or suggested by Fink would not have been uniquely challenging to a person of ordinary skill in the art because it is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement" *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) and it "does no more than yield predictable results." *KSR* at 1739.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Phelps (controller 250 and sensor), Miller et al. (controller 1666, 1667), and Heim (controller).

9. Applicant's arguments filed June 29, 2009 have been fully considered but they are not persuasive.

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Luong/
Primary Examiner, Art Unit 3656